

Caswell (E.T.)

With Compliments of the Author.

FRACTURES

AT THE

RHODE ISLAND HOSPITAL,

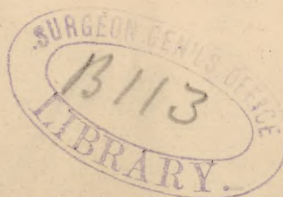
1868-1878.

BY

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SURGEON TO THE HOSPITAL.

[REPRINTED FROM THE BOSTON MEDICAL AND SURGICAL JOURNAL.]



CAMBRIDGE:

Printed at the Riverside Press.

1880.

FRACTURES AT THE RHODE ISLAND HOSPITAL.

By EDWARD T. CASWELL, M. D., PROVIDENCE, R. I.

THE Rhode Island Hospital was opened for the admission of patients on October 1, 1868. When it had completed the first ten years of its existence, I thought I would collect and publish some statistics of what had been done during those years by my colleagues and myself. The laborious undertaking of going over the hospital records and other engrossing duties have postponed the publication of this, which may be considered a first contribution, until this late day. I greatly regret the inaccuracy of the records, and their failure in a large majority of cases to supply precisely the most important information, as, for example, the side of the body which sustained injury, and the length of limb in fractures of the lower extremity, both on admission and discharge. Nothing can be more unsatisfactory or more worthless for all purposes of comparison than to have the result of treatment of a case of fracture entered as "good," or "well," or "recovered." But such, I regret to say, has frequently been the entry. In spite of these failures, however, I venture to present the following tables, hoping that they may not be without some interest. They represent all the fractures admitted to the wards of the hospital for ten years; they do not include fractures treated in the outpatient department.

I find recorded 185 cases of fracture occurring in 167 persons. There have been 152 cases of single fracture, 12 in which there were two different fractures, and 3 in which there were three different fractures. Each of these are entered under their respective sections. Of course this does not apply to the case of fractured ribs, where one, two, or more may be broken, nor to that of a leg or fore-arm where both bones are broken. Just as these sheets were nearly ready for the press, I find that one case of fracture of both thighs and one of compound fracture of both legs have each been entered as one fracture. So that there are actually 187 cases of fracture in 167 individuals. Fractures of the foot and hand have not been included. A separate list has been added of injuries rapidly fatal, although they have been included in their appropriate sections. I have also appended the statistics of the very small number of dislocations that have been admitted to the wards of the hospital for the same period.

From the summary we see that of all the fractures nearly one half were fractures of the lower extremity, and of these more than half were fractures of the leg. Of the latter more than half were fractures of both bones. According to frequency, these fractures would be arranged as follows: Leg, thigh, fore-arm, arm, ribs, clavicle, skull, vertebra, scapula. No fractures of the pelvis are recorded. The relative frequency of the fractures of the different sides of the body will be referred to further on.

MORTALITY.

Of the 167 individuals who were admitted for fractures, 25 died, or 15 per cent. Of these, 15 died in the course of twenty-four hours, and of this number, 11

were caused by railroad accidents. These deaths, although not so stated in the record, are without doubt to be ascribed to shock and the loss of blood attendant upon the accidents. Of the remaining 10 cases, 2 died from intemperance, 1 from pneumonia following a fracture of the ribs, 1 from pyæmia, 1 from convulsions on the third day after a compound fracture of the skull, 1 suddenly, without cause ascertained, on the second day after a simple fracture of the thigh; and in the remaining 4 cases death ensued from the injury, at intervals varying from thirty-six hours to six days, as follows: (1) vertebra and compound fracture of tibia, six days; (2) vertebra, three days; (3) skull, three days; (4) base of skull, thirty-six hours.

REVIEW OF FRACTURES IN GROUPS.

I now propose to pass in review the different groups of fracture, stating such points as are the most salient in the tables.

CRANIUM.

There were ten cases, all in males, of which seven were compound. All died except two of the latter. Of these, one was a compound comminuted fracture of the left orbital region, accompanied with the loss of brain substance. The accident happened six weeks before his admission to the hospital, and was occasioned by a heavy piece of machinery falling upon him while erecting the engine at the pumping station at Sockanossett. Pieces of bone were removed at the time. He remained in the hospital one hundred and fifty-two days, and left entirely restored, with the loss of the left eye. He has continued to be perfectly well, and still fills the post of engineer at the station. The other successful case was caused by a pistol-shot in the frontal and parietal region. The trephine was used, the bullet extracted, and the patient left the hospital in twenty-three days.

MAXILLÆ.

There were nine cases, all in males. One died from delirium tremens. One was a compound fracture of both bones, and left the hospital at the expiration of twenty-six days. Of the seven simple cases, the average residence was twenty-six days. Wiring the teeth, pasteboard and gutta-percha splints, were the methods of treatment.

RIBS.

There were thirteen cases, of which ten were males and three females. Of these three died, two from other serious injuries, and one from pneumonia, in twenty days. Of the remaining ten, the average residence in the hospital was thirty-three days. In seven cases more than one rib was broken. The majority of cases were treated by strips of adhesive plaster.

SCAPULA.

Of only four cases recorded, all of males, one died from fracture of the skull. In two cases the left is specified. The average residence of three was thirty-three days.

FRACTURES OF THE HEAD.

Sex.	Age.	Nativity.	Date of Admission.	Cause.	Definition of Fracture.	Treatment.	Date of Discharge.	Result.	Remarks.
I. CRANIUM.									
Simple.									
1	M.	25	October 23, 1873.	Railroad accident.	Base.		October 26, 1873.	Died.	Thirty-six hours after admission.
2	M.	27	December 7, 1874.	Railroad accident.	Left supra-orbital arch.		December 8, 1874.	Died.	Left hospital next morning.
3	M.		September 24, 1875.	Thrown fr. carriage.			September 25, 1875.		
1	M.	50	April 2, 1875.	Brick falling.	"No depression."	Compound.	April 5, 1875.	Died.	Twenty-six convulsions April 5th.
2	M.	36	October 16, 1875.	Fall from house.	Comminuted.		October 16, 1875.	Died.	Died on day of admission.
3	M.	45	October 29, 1875.	Heavy castings fell on him.	Comminuted, left frontal bone.		March 30, 1876.	Good.	Accident six weeks before admission. Attended with laceration and loss of brain, loss of left eye, and fracture orbital plate.
	M.	33	June 15, 1876.		Left ant. surface depressed.	Fragm. removed, depressed bone elevated.	June 15, 1876.	Died.	Comminuted on admission. Died in six hours.
5	M.	38	August 7, 1876.	Gun-shot, suicidal.	Frontal and parietal.	August 19th, trephined; bullet removed.	August 30, 1876.	Good.	Bullet lodged in bone. Accident two weeks before admission.
6	M.	13	May 16, 1878.	Fall from third story.	Depressed behind left ear.		May 16, 1878.	Died on admission.	Compound dislocation right radius, fracture left ulna and right tibia and fibula.
7	M.	45	July 15, 1878.	Mining accident.	Depressed.	Trephined; piece of bone removed from between dura mater and inner table.	July 15, 1878.	Died 8 hours after admission.	Fracture left acromion, comminuted fracture left tibia.
II. SUPERIOR AND INFERIOR MAXILLA (COMPOUND).									
1	M.	35	July 13, 1877.	Struck by derrick.	Super. entire length hard palate in median line; finger could be laid in cavity. Infer., left of symphysis.	Inferior teeth wired, and pasteboard splint.	August 13, 1878.	Good.	Fracture of clavicle, No. 10.
III. INFERIOR MAXILLA.									
1	M.	26	November 4, 1868.	Blow.	(1) In left of symphysis and (2) front of angle, right side.	Teeth on left side wired; four-tailed bandage.	December 8, 1868.	Good.	Small spicula of bone discharged from an abscess which formed on inner surface, right side.
2	M.	—	August 16, 1869.		Near symphysis.	Four-tailed bandage.	August 21, 1869.	Died.	Dellirium tremens.
3	M.	26	October 2, 1871.	Run over.	At lateral incisors, alveolar process not ruptured.	Pasteboard splint.	October 21, 1871.	Good.	
4	M.	24	February 1, 1872.	Blow.	At symphysis.	Gutta-percha splint.	February 27, 1872.	Good.	
5	M.	30	July 10, 1873.	Struck by hawser.		Gutta-percha splint; teeth wired.	August 8, 1873.	Good.	
6	M.	8	March 6, 1874.	Fall.	Each side median line.	Gutta-percha splint.	March 26, 1874.	Good.	Removed by friends. Fracture left femur, No. 9.
7	M.	42	April 20, 1877.	Fall.	Between canine and first bicuspids; not oblique.	Pasteboard splint.	May 28, 1877.	Good.	Small pieces of bone discharged May 23d and 24th from abscess on inside over seat of fracture.
8	M.	50	July 15, 1878.	Blow.	Right, half an inch anterior to angle.	Pasteboard splint.	August 8, 1878.	Union.	Discharged because he refused to submit to wiring fragments.

FRACTURES OF THE VERTEBRÆ.

1	M.	28	French Canadian.	September 15, 1869.	Struck by a beam falling.	Spinous process of one of lower dorsal wanting.	September 21, 1869.	Died.	Paralysis of lower extremities and bladder. Compound fracture of tibia and fibula. (No. 1.)
2	M.	58	American.	October 21, 1869.	Fell 8 ft. on back.	Seventh dorsal vertebra.	October 24, 1869.	Died.	
3	M.	34	English.	February 22, 1871.	Railroad accident.	Fourth cervical, also dislocated.	February 22, 1871.	Died.	Shortly after entrance, twenty-four hours after accident.
4	M.	24	Irish.	April 20, 1875.	Railroad accident.	Eleventh dorsal vertebra, and dislocation of tenth.	April 10, 1875.	Died in 9 hours.	Fracture of ribs and acromial end of clavicle.
5	M.	35	American.	January 11, 1876.	Struck by heavy stone.	Last dorsal and first lumbar.	January 11, 1876.	Died.	In an hour after admission.
6	M.	42	English.	January 16, 1878.	Struck by falling timber.		September 11, 1878.	Improved.	Had paralysis of lower extremities and bed sores. Later healed, and able to walk well when discharged.

FRACTURES OF THE RIBS.

1	M.	13	American.	February 17, 1872.	Railroad accident.	Four lower, near vertebrae.	February 17, 1872.	Died in 1/2 hour.	Compound fracture of leg.
2	F.	60	Irish.	April 19, 1873.	Railroad accident.	Pad and bandage.	May 11, 1873.	Died.	Pneumonia. Fracture of tibia and fibula. (No. 8.)
3	M.	46	Fr. Canadian.	August 20, 1873.	Run over.	Sixth and seventh, near sternum.	September 2, 1873.	Good.	Accident two weeks before admission, followed by cough and expectoration.
4	M.	40	Irish.	September 20, 1873.	Stamped upon.	Eighth, ninth, and tenth.	October 28, 1873.	Good.	

5 M.	50 Irish.	January 9, 1874.	Fall.	Eighth and ninth.	Adhesive strips.	Good.	January 29, 1874.	Good.	Dislocation tenth dorsal vertebra. Fracture of eleventh and acromial end of clavicle.
6 M.	24 Irish.	April 20, 1875.	Railroad accident.			Died in 9 hours.	April 2, 1875.		
7 M.	42 Irish.	May 5, 1875.	Fall.	Seventh.	Adhesive plaster.	Good.	May 24, 1875.	Good.	
8 M.	43 Scotch.	October 25, 1875.	Fall.	Several.	Adhesive plaster.	Good.	December 31, 1875.	Good.	
9 M.	35 Irish.	October 29, 1875.	Fall.	Eighth.	Adhesive plaster and band.	Good.	November 8, 1875.	Good.	
10 M.	67 Portuguese.	January 5, 1876.	Fall.	Several.	Bandage.	Good.	March 28, 1877.	Good.	
11 F.	63 English.	July 13, 1877.	Fall.	Right side, two ribs.	Adhesive plaster.	Good.	August 11, 1877.	Good.	Eloped. Complicated with fracture of tibia and fibula. No. 13.
12 F.	40 Irish.	January 16, 1878.	Struck by fall. timb.	Fourth, near sternum.	Adhesive strips.	Good.	February 1, 1878.	Good.	
13 M.	25 American.	March 5, 1878.	Fall.	Sixth, three or four inches from sternum.	Adhesive strips.	Good.	March 15, 1878.	Good.	

FRACTURES OF THE SCAPULA.

1 M.	50 Irish.	August 23, 1871.	Blow.	Neck.	Pad in axilla, arm across chest.	Unrelieved.	September 28, 1871.	Unrelieved.	Accident two months prior to admission. When discharged, no union.
2 M.	44 American.	April 15, 1872.	Fall.	Neck.	Pad in axilla and sling bandage. April 22d ad. strips.	Good.	May 14, 1872.	Good.	Discharged at his own request.
3 M.	49 Irish.	June 15, 1875.	Kick of horse.	Left.	Adhesive plaster, Sayre's method.	Good.	July 21, 1875.	Good.	Fractured clavicle. No. 5.
4 M.	45 Irish.	July 15, 1878.	Mining accident.	Left acromial process.		Died 8 hrs after admission.	July 15, 1878.		Depressed fracture of skull. Comminuted fracture of left tibia.

FRACTURES OF THE CLAVICLE.

1 M.	30 Irish.	September 11, 1871.	Fall.	Right, two and a half inches from acromion.	Pad in axilla and bandage.	Good.	October 10, 1871.	Good.	
2 M.	26 Irish.	April 19, 1873.	Railroad accident.	Left, middle.	Pad in axilla and over tract, and figure of eight band.	Good.	June 11, 1873.	Good.	
3 M.	40 Irish.	March 5, 1874.	Jammed.	Left, middle, two fractures.	Adhesive strips.	Good.	April 4, 1874.	Good.	February 27th, large callus.
4 F.	38 English.	March 30, 1874.	Railroad accident.		Bandage. April 1st, adhesive plaster.	Good.	April 21, 1874.	Good.	When discharged, ends overlapped one half to three fourths of an inch. Scalp wound and loss of two toes.
5 M.	24 Irish.	April 20, 1875.	Railroad accident.	Acromial end.		Died in 9 hrs.	April 20, 1875.		Fracture of ribs and eleventh dorsal vertebra, and dislocation of the tenth.
6 M.	49 Irish.	June 15, 1875.	Kick of horse.	Left, acromial end.	Adhesive plaster (Sayre's).	Good.	July 21, 1875.	Good.	Fracture of scapula. No. 3.
7 M.	28 Irish.	October 29, 1875.	Earth caved in.	Right, inner third.	Fox's apparatus. November 6th, bandage.	Good.	December 31, 1875.	Good.	
8 M.	30 Irish.	November 23, 1875.	Fall.	Right, two in. from acromion.	Bandage.	Good.	December 31, 1875.	Good.	
9 M.	38 Irish.	February 24, 1877.	Fall.	Right, outer third.	Pad in axilla, bandage, arm in sling.	Good.	March 29, 1877.	Good.	
10 M.	35 Irish.	July 16, 1877.	Struck by derrick.	Right, junction middle and outer thirds.	Pad in axilla and bandage.	Good.	August 13, 1877.	Good.	Fracture of superior and inferior maxilla. No. 1.
11 M.	38 Irish.	July 21, 1877.	Blow.	Near outer extremity.	Adhesive plaster and band.	Good.	July 25, 1877.	Good.	Left the hospital.
12 M.	30 Irish.	January 3, 1878.	Jammed.	Left, acromial end.	Adhesive strips (Sayre's).	Good.	January 24, 1878.	Good.	

FRACTURES OF THE UPPER EXTREMITY.

HUMERUS.									
1 M.	60 German.	June 19, 1869.	Fall.	Middle and lower thirds.	No treatment.	Died.	June 22, 1869.	Effects of intemperance.	
2 M.	29 German.	January 10, 1870.	Wrench.	Left, just above middle, transverse.	External and internal angular splints.	Slight deformity.	February 24, 1870.	Union firm. Motion imperfect.	
3 F.	64 Irish.	June 30, 1871.	Fall.	Just below surgical neck.	Gutta serena splint and shoulder cap.		July 29, 1871.	Discharged by request.	
4 M.	40 Irish.	September 30, 1871.	Fall.	Upper third.	Internal angular splint.	Good.	October 30, 1871.	Fracture occurred one week before admission.	
5 F.	11 American.	January 29, 1872.	Fall.	Lower and middle thirds.	Internal angular and external splints.	Good.	April 1, 1872.	Fracture a little more than one week prior to admission.	
6 M.	37 Irish.	June 7, 1872.	Machinery accident.	Left, two in. above elbow.	Plaster Paris at angle.	Good.	May 4, 1873.	Seven-pound weight, November 5th, to hand to overcome flexion.	
7 M.	68 American.	February 25, 1873.	Fall.	External condyle, involving joint.	Internal angular splint.	Good.	November 19, 1873.	November 10th, ten pounds. Pyæmia. Abscesses, both elbows.	
8 M.	15 Irish.	September 24, 1873.	Fall on elbow.	Left, internal condyle.	No apparatus.	Died.	October 27, 1874.		
9 M.	25 Colored.	August 17, 1874.	Fall from scaffold.	Internal condyle (?).	Internal angular splint.	Good.	September 19, 1874.	Motion almost perfect. Accident four days before admission.	
10 M.	37 American.	September 3, 1874.	Fall.	Internal condyle.	Rectangular splint.	Good.	December 19, 1874.	Fracture of ulna and radius two inches from wrist.	
11 M.	21 Irish.	November 17, 1874.	Fall.	Left, internal condyle.	Internal angular splint.	Good.	December 24, 1874.		
12 M.	34 Irish.	January 5, 1875.	Fall.	Right, internal condyle.	Ant., post., and lat. splints.	Good.	February 18, 1875.		
13 M.	24 English.	June 14, 1875.	Machinery accident.	Right, upper third.	Lateral splints.	Good.	July 19, 1875.		

FRACTURES OF THE UPPER EXTREMITY (continued).

Sex.	Age.	Nativity.	Date of Admission.	Cause.	Definition of Fracture.	Treatment.	Date of Discharge.	Result.	Remarks.
14	M.	— American.	November 18, 1875.	Fall.	External condyle.	External angular splint, int. below elbow.	January 2, 1875.	Good.	Discharged for drunkenness before treatment ended.
15	F.	42 Irish.	December 9, 1875.		Lower third.	Plaster Paris. January 9th, inter. and ext. splints.	February 7, 1875.	Good.	Fracture of ulna "above coronoid process."
16	F.	70 English.	January 1, 1876.	Fall.	Left. High up.	Plaster Paris.	February 26, 1876.	Good.	
17	M.	42 French Canadian.	June 8, 1875.	Fall.	Left. External and internal condyles.	Internal angular splint.	July 8, 1875.	Good.	
ELBOW-JOINT.									
1	M.	23 American.	January 25, 1869.	Railroad accident.	Left, compound.	Resection.	June 15, 1869.	Wound nearly healed.	Left without permission. Said to have been amputated subsequently.
2	M.	28 German.	July 5, 1876.	Railroad accident.	Right, comminuted.	Internal ang. splint. July 12th, straight splint.	February 2, 1877.	Good.	Compound comminuted fracture of right tibia and fibula.
RADIUS AND ULNA.									
1	M.	8 American.	December 12, 1870.	Fall.	A little above wrist.	Ant. and post. splints.	January 2, 1871.	Good.	Lacerated wound wrist.
2	M.	27 American.	April 7, 1871.	Machinery accident.	Radius, lower part.	Bond's splint.	May 15, 1871.	Good.	
3	M.	14 American.	December 17, 1873.	Fall.	Right, middle arm.	Straight splints; plast. Paris.	January 15, 1874.	Good.	Fracture right humerus (No. 13). Discharged for drunkenness before treatment ended.
4	M.	34 English.	June 14, 1876.	Fall.	Right, two inches above wrist.	Light side splints.	July 14, 1876.	Good.	Union and position good.
5	F.	15 Irish.	January 12, 1878.	Fall.	Left, middle and lower thirds; transverse.	Ant. and post. splints.	February 12, 1878.	Good.	
6	M.	13 Pole.	June 4, 1878.	Machinery accident.	Just below elbow.	Straight ant. splint.	August 17, 1878.	Good.	
7	M.	19 Irish.	September 23, 1878.	Machinery accident.		Ant. and post. splints.	October 10, 1878.	Good.	Discharged at request.
RADIUS.									
1	M.	12 American.	October 13, 1868.	Fall ten feet.	Right lower end, carpus driven backward.	Ant. and post. splints.	October 25, 1868.	Good.	
2	M.	52 American.	November 5, 1868.	Fall.	Left lower end.	Ant. and post. splints.	December 18, 1868.	Good.	
3	F.	24 Irish.	February 10, 1872.	Fall.	Colles.	Bond's splint, short dorsal.	March 27, 1872.	Good.	
4	F.	55 Irish.	February 2, 1876.	Fall.	Right, Colles.	Pistol-shaped splint.	March 28, 1876.	Good.	
5	M.	52 American.	April 4, 1877.	Fall.	Colles.	Pastebord splints.	May 14, 1877.	Good.	Good motion, radius straight.
6	M.	43 Nova Scotian.	May 4, 1877.	Fall.	Just below tubercle.	Int. ang. splint.	July 3, 1877.	Good.	Dislocation left wrist. Comp. frct. third finger right hand. Loss of second finger of left hand, with first metacarp. Face and eyes burned with powder.
7	M.	29 Irish.	May 14, 1878.	Blasting accident.	Right, Colles.	Ant. splint.	June 22, 1878.	Good.	
ULNA.									
1	M.	15 American.	January 13, 1872.	Fall.	Olecranon.	Plaster Paris (straight).	March 30, 1872.	Good.	Abscess over eye, February 20.
2	M.	65 Irish.	July 11, 1872.	Machinery accident.		Bond's splint and short dors.	August 13, 1872.	Good.	No crepitus; preternatural mobility.
3	F.	41 American.	April 3, 1873.	Fall from window.	One inch below elbow.	Pastebord splints.	May 9, 1873.	Good.	Accident some time before admission, and treated in out-patient department.
4	F.	18 Irish.	April 19, 1873.	Railroad accident.		Straight splint.	May 10, 1873.	Good.	Fracture condyle hum. (14)
5	M.	33 Irish.	August 1, 1874.	Horse-car.	A little above middle.	Extern. and intern. splints.	September 7, 1874.	Good.	Depressed fracture skull.
6	M.	30 Portuguese.	November 3, 1875.	Blow.			December 8, 1875.	Good.	right radius. Fracture right fib. and fib.
7	M.	— American.	November 18, 1875.	Fall.	Left, "above coron. process."	Int. splint and ext. ang.	January 12, 1876.	Good.	
8	M.	13 Scotch.	May 16, 1878.	Fall from 2d story.	Left.		May 16, 1878.	Died on admis.	

FRACTURES OF THE LOWER EXTREMITY.

FEMUR.

Simple

(1.) NECK OF FEMUR.

1	M.	79 Irish.	February 27, 1872.	Fall.	Ext. and count. ext. March 27, plaster Paris.	June 26, 1872.	Unrelieved.	One inch shortening; bear no weight.
2	M.	40 Irish.	April 19, 1872.	Fall.	Ext. 25 lbs.; long side splint.	May 7, 1872.	Good.	No shortening; union firm.
3	F.	53 English.	December 19, 1872.	Fall on ice.	Weight and pulleys; re-February 1.	April 4, 1873.	Good.	Erysipelas face, March 2.
4	M.	60 Irish.	December 25, 1872.	Fall on ice.	Long splint, Jan. 6, weight pulleys.	March 25, 1873.	Good.	Left without permission.
5	M.	21 American.	April 21, 1873.	Thrown from stage.	Buck's ext. April 25, plaster Paris.	April 29, 1873.		

6	M.	61	English	July 29, 1873.	Fell off a load.	One inch shortening.	Buck's ext. 15 lbs. Aug. 1, Plaster Paris.	September 23, 1873.	Shortening $\frac{1}{4}$ to $\frac{1}{2}$ inch.	Accident happened a week before admission. Discharged, walking with one crutch. Crepinus on re-
7	M.	17	Irish.	November 29, 1873.	Fall.	No shortening; eversion.	Ext. and counter ext. Red raised. Feb. 27, Plaster Paris.	March 17, 1874.	Shortening $\frac{3}{4}$ in.	Left without permission. Fell again May 29, and re-
8	F.	56	Irish.	February 27, 1875.	Fall.	R. Extra capsular.	Sand bags. Buck's ext. removed March 8.	April 24, 1875.	Shortening.	admitted. See No. 10, below.
9	F.	75	Irish.	January 30, 1877.	Fall.	One inch shortening.	Buck's apparatus. 7 lbs. removed March 28.	April 23, 1877.	Shortening.	Ligam. union, so that she can move trochanter in arc of a circle.
10	F.	72	Irish.	July 9, 1877.	Impacted.	Impacted.	Buck's apparatus.	July 23, 1877.	Discharged.	Entirely unmanageable, remov'g dressings frequently.
1	M.	69	American.	January 8, 1870.	Thrown from wagon.	Left oblique; upper and middle thirds.	(2.) SHAFT. Buck's extens.	February 26, 1870.	Union firm.	Removed by friends.
2	F.	65	American.	November 5, 1870.	Fall.	Lower third.	Buck's apparatus. Dext., February 17, 1871.	April 13, 1871.	Good.	Fracture existed two weeks before admission; had not been diagnosed.
3	M.	26	Irish.	February 10, 1871.	Fall.	Just above knee.	Buck's extens. Plaster Paris, March 12.	April 21, 1871.	Good.	
4	M.	21	American.	November 2, 1871.	Ballroad accident.	Left, comminuted.	Modified Liston's splint.	November 2, 1871.	Died in few hrs.	Compound fracture right femur.
5	M.	11	Irish.	November 13, 1871.	Fall.	Middle third.	Buck's 10 lbs. July 22, plaster Par. with strips.	January 11, 1872.	Good.	Union firm.
6	M.	9	American.	July 15, 1873.	Run over.	Left, middle, transverse, two inches shortening.	Buck's 15 lbs. Sept. 15, plaster Paris; Oct. 7, rem'd; Oct. 13, long side splint; ext. and counter extens. November 22, removed.	August 30, 1872.	Good.	
7	M.	50	Irish.	August 21, 1873.	Knocked down by pole.	Left, middle, and at junct. middle and upper thirds.	Buck's 15 lbs. Sept. 15, plaster Paris; Oct. 7, rem'd; Oct. 13, long side splint; ext. and counter extens. November 22, removed.	February 27, 1874.	Good.	September 15, half inch shortening. October 13, fell and broke thigh again in same place.
8	M.	—	Irish.	October 4, 1873.	Pole fell on him.	Lower third; one and a half inches shortening; left half inch shorter.	Buck's 20 lbs. October 21, right splint.	January 6, 1874.	Good.	Shortening, one inch.
9	M.	37	Nova Scotian.	October 7, 1873.	Staging broke.	Both, lower thirds, left half inch shorter.	Buck's 14 lbs.	December 16, 1873.	Good.	Fracture occurred week before admission. November 14, both legs equal length; union firm.
10	M.	8	American.	March 6, 1874.	Fall.	Left, two inches shortening.	Plaster Paris. March 24. Buck's ext.	March 26, 1874.	Good.	Removed by friends. One inch shortening; complicated fracture lower jaw, November 6.
11	M.	17	Irish.	May 29, 1874.	Fall.	Left, two inches shortening.	Buck's 30 lbs.	August 14, 1874.	Good.	June 26, quarter to half inch shortening. Same case as No. 1, previous section.
12	M.	22	Swede.	June 2, 1874.	Fall from staging, three stories.	Right, middle third, one and three quarters inch shortening.	Plaster Paris flannel mould. June 12, Buck's 14 lbs.; increased one 16 to 20 lbs.	August 13, 1874.	Good.	July 1, no shortening.
13	M.	37	American.	August 11, 1874.	Fall from staging.	Right, oblique, one inch shortening.	Buck's 28th, Dessault's splint; Sept. 4, Buck's.	October 15, 1874.	Good.	September 12, one inch shortening.
14	M.	19	Irish.	November 28, 1874.	Heavy plate boiler iron fell on him.	Right, middle, and lower third, half inch shortening.	Day's side splint; exten. on foot piece; short ant., post., and intern. splints. Jan. 1, plaster Paris.	April 5, 1875.	Good.	February 22, fell and refractured thigh. March 30, can walk without crutches. Complicated on admission, compound dislocation internal cuneiform left foot. Wound one inch long. Sutures. Bone forcibly replaced. Feb. 8, wound healed.
15	M.	27	Irish.	July 20, 1875.	Bank fell on him.	Right, lower third.	Buck's; 22d, double incline'd plane exten. from knee. Aug. 31, plaster Paris; Sept. 1, Dessault's splint.	November 17, 1875.	Good.	September 18, half inch shortening.
16	M.	28	Irish.	August 17, 1875.	Fall.	Left, lower third, two inches shortening.	Ant., post., and lat. splints.	August 19, 1875.	Death.	Died suddenly; no cause found.
17	M.	48	English.	July 25, 1876.	Fall.	Right, middle, oblique.	Day's splint. Aug. 24, plaster bandage.	November 8, 1875.	Good.	One eighth inch shortening.
18	M.	38	Canadian.	September 21, 1876.	Staging broke; fell fifteen feet.	Right, upper third, oblique.	Dessault's; Oct. 15, plaster Paris.	November 11, 1876.	Good.	Accident eleven days before admission. Oct. 3, three quarters inch shortening. Disch'd at own request.
19	M.	23	Irish.	December 2, 1876.	Struck by bale of cotton.	Little above middle.	Dessault's; Jan. 20, Buck's ext. Feb. 4, removed.	March 30, 1877.	Good.	
20	M.	28	Canadian.	April 23, 1877.	Struck by large block granite.	Left, middle third.	Good union; apposit. perfect. June 10, outward curve, comp. splint reapplied. July 18, fell and refractured it. Buck's; 11th, plaster and extens.	October 6, 1877.	Good.	September 11, one third inch shortening.
21	F.	40	American.	July 7, 1877.	Fall.	Comminuted, lower third.	Buck's; Sept. 5, plaster Paris above knee.	September 22, 1877.	Good.	September 16, measured, no shortening discovered.
22	M.	21	Irish.	August 15, 1878.	Rock fell on him.	Right, middle third, transverse.	Buck's 12 lbs. Sept. 23, plaster Paris down to knee. Oct. 22, two thin splints.	November 6, 1878.	Good.	September 28, half inch shortening; walking well without crutch or cane.
23	F.	80	Irish.	September 21, 1878.	Fall.	Right, just below trochanter.	Buck's; eight pounds.	September 24, 1878.	Unrelieved.	Removed by friends.

FRACTURES OF THE LOWER EXTREMITY (continued).

Sex.	Age.	Nativity.	Date of Admission.	Cause.	Definition of Fracture.	Treatment.	Date of Discharge.	Result.	Remarks.
FEMUR.									
<i>Compound.</i>									
1	M.	21	American.	November 2, 1871.	Railroad accident.	Right femur; with comminuted fracture left femur.		Died.	In a few hours.
2	M.	12	American.	February 8, 1874.	Railroad accident.	Comminuted left femur.		Died.	Compound comminuted right tib. and fib. Two hours after admission.
3	M.	31	Canadian.	April 9, 1874.	Railroad accident.	Comminuted right femur.		Died.	One hour after admission.
4	M.	—	Irish.	September 24, 1875.	Railroad accident.	Comminuted left femur; compound commin'd fracture fourth finger left hand; lacerated wound left arm from shoulder to wrist.		Died.	Half hour after admission.
PATELLA.									
1	M.	23	American.	September 16, 1874.	Fall.	Stellate.	Fig. eight bandage; adhesive strips; post splint.	Good.	Fragments found in good position.
2	M.	30	American.	August 14, 1876.	Fall.	L. transverse.	Post splint and elastic bands.	Good.	
TIBIA AND FIBULA.									
<i>Simple.</i>									
1	M.	35	Colored.	February 22, 1869.	Railroad accident.	Left tib. junct. middle and upper third; fib. 3 in. lower.	Fract. box; March 2 ^d dextrine band.	Good.	
2	M.	25	Irish.	July 3, 1869.	Mach. accident.	L. tibia 4 in. above ankle, comminuted. Fibula 1 in. lower; transverse.	Fract. box; weight and extension 5 lbs.; Aug. 10, dextrine band.	Good.	No apparent shortening.
3	M.	55	American.	July 22, 1870.	Buried by falling wall.	L. ankle, tib. and fib., comminuted.	Fract. box and counter-extension.	—	Discharged at own request.
4	M.	50	Canadian.	July 27, 1870.	Earth and stones fell on him.	Ununited fracture.	Fract. box; Aug. 15, dextrine band.	Good.	Fib. united; tib. considered firm. Accident 68 days prior to admis. Disch. at own request.
5	F.	40	Irish.	December 25, 1870.	Fall.	Oblique at middle of leg.	Fract. box; Feb. 14, 1871, plaster Paris splint.	Good.	
6	M.	66	Irish.	March 4, 1872.	Railroad accident.	Just above ankle	Plaster Paris; April 2, dextrine band.	Good.	Fracture occurred six weeks before admission; union. Treated with plas. Paris before admis. Fractured five days before admission.
7	M.	20	Irish.	June 24, 1872.	Earth caved in.	Right	Fract. box; Aug. 6, dextrine band.	Good.	Complicated with fractured rib, No. 1. Death from pneumonia.
8	F.	60	Irish.	April 19, 1873.	Railroad accident.	Three inches below knee.	Fract. box; April 23, plaster Paris.	Died.	
9	M.	45	Irish.	October 11, 1873.	Earth fell on him.	Middle; shortening one half inch.	Fract. box; Oct. 26, plaster Paris band.	Good.	
10	M.	19	German.	November 6, 1873.	Caught by rope.	Just above ankle; shortening one inch.	Fract. box; Nov. 21, plaster Paris; Dec. 12, gutta-percha splint.	Good.	
11	M.	22	Irish.	December 27, 1873.	Earth caved in.	Near knee; shortening one in.	Extension by wt. 12 lbs.; count. ext. Fract. box.	Good.	
12	M.	35	Irish.	January 10, 1874.	Kick.	Four inches above ankle; shortening one inch.	Jan. 5, plaster Paris. Justed; Feb. 7, new splint.	Good.	
13	M.	29	Irish.	February 24, 1874.	Earth caved in.	Left; middle, shortening three fourths inch.	Plaster Paris; March 10, renewed.	Good.	
14	M.	26	Portuguese.	May 15, 1875.	Jumped off cars.	Right; middle, oblique.	Fract. box; May 24, plaster Paris.	Good.	May 24, three eighths inch shortening.
15	F.	63	English.	July 13, 1877.	Fall.	Left; just above joint.	Fract. box.	Good.	Left the hospital. Complicated with fractured ribs, No. 8.
16	M.	39	Irish.	March 30, 1878.	Fall.	Left; lower third, transverse.	Plaster bandage, Little's method; May 6, pasteboard splints.	Good.	Left the hospital. Accident happened eight days before admission. Had delirium tremens.
17	M.	13	Scotch.	May 16, 1878.	Fall from third story.	Right.		Died on admis.	Depressed fracture skull; compound dislocation right radius; fracture left ulna.
1	M.	28	French Canadian.	September 15, 1869.	Struck by falling beam; back and leg.	Tibia, junct. upper and middle thirds; bone protruding; fibula comminuted.	<i>Compound.</i> Fract. box.	Death.	Fract. spin. process of one lower dorsal vertebra, No. 1; paralysis lower extremities and bladder.
2	M.	24	American.	January 31, 1872.	Railroad accident.			Death in 3 hours.	Penetrating wound thigh down to trochanter.
3	M.	13	American.	February 17, 1872.	Railroad accident.			Died in 4 hour.	Fract. four lower ribs near vertebral connection.
4	M.	39	Irish.	May 6, 1872.	Barrel beer fell on leg.	Near ankle; comminuted.	Fract. box; June 4, dextrine band.; removed July 1.	Good.	

M. 12	American.	February 8, 1874.	Railroad accident.	Comminuted.	One half to one in. lower end tibia removed; plaster Paris with fenestra; June 17, fr. box; July 15, side splints; July 30, leg swung; Aug. 13, side splints removed.	February 8, 1874. August 24, 1872.	Died in 2 hours. Good.	Compound comminuted fracture left femur. Good union ankylosis ankle; openings in leg sides nearly healed. July 4, erysipelas in leg August 1, large slough from heel.
7 M. 57	German.	April 25, 1876. July 6, 1876.	Railroad accident.	Right, comminuted.	Fract. box; July 21, plaster Paris; Sept. 15, tibia drilled, fibula firm; Sept. 28, external splint; Oct. 8, internal.	April 25, 1876. February, 2, 1877.	Died in 1½ hours. Good.	Loss of toes of left foot. Small pieces bone worked out. When discharged sinuses still open; could walk on leg.
9 M. 26	Irish.	November 29, 1876.	Struck by a car.	Comminuted.	Plaster Paris; fract. box, gauze.	May 28, 1877.	Good.	Leg dropped off. Bones removed higher up.
10 M. 24	American.	August 20th, 1877.	Railroad accident.	Comminuted, both legs.	Coaptation splints.	August 20, 1877.	Died in 2 hours.	Removed by friends.
11 M. 25	Irish.	August 2, 1878.	Kick.	Middle third.	Long post. short external splint; Sept. 24, plaster Paris with fenestra.	August 23, 1878. October 11, 1878.	Good.	Discharged at request. Dead bone could be felt.
12 M. 12	English.	August 14, 1878.	Jumping.	Middle third; wound in skin down to tibia.				
1 M. 30	American.	June 15, 1871.	Railroad accident.	Right.		August 24, 1871.	Good.	Amputation left leg middle and lower thirds.
2 M. 26	Irish.	November 24, 1871.	Fall.	Lower third.	Fracture box, Splint and count. ext.; 80th, fract. box; Dec. 5, Smith's ant. splint; Jan. 3, plaster Paris.	March 9, 1872.	Good.	Plast. Paris removed Jan. 30; slough found not fully healed when discharged.
3 F. 50	Irish.	December 27, 1871.	Run over.	Oblique lower third.	Jan. 8, plaster Paris.	February 27, 1872.	Good.	
4 M. 34	Irish.	September 17, 1872.	Iron fell on him.	Two inches above ankle.	Fract. box; Oct. 3, dextrins splint.	October 22, 1872.	Good.	
5 M. 44	English.	September 26, 1872.	Fall.		Ext. and int. splints; Oct. 2, fract. box; Oct. 11, dext. band.	February 27, 1873.	Good.	
6 M. 51	Irish.	March 13, 1873.	Run over.		Plaster Paris; April 11, fenestra in consequence of ulcer.	May 23, 1873.	Good.	Discharged for intoxication.
7 M. 18	Irish.	April 19, 1873.	Railroad accident.	Two inches below knee.	Fracture box; April 23, plaster Paris.	June 11, 1873.	Good.	
8 M. 35	Irish.	June 9, 1873.	Fall.		Fract. box; June 15, plaster Paris.	August 9, 1873.	Good.	Ulceration from bandage, fenestra.
9 M. 23	Swede.	July 6, 1873.	Struck by spar.	Right, near ankle.	Fract. box; July 11, plaster Paris; July 19, fenestra for wound; Sept. 23, side splints.	November 16, 1873.	Good.	Fract. occurred at sea two days before admission. Back injured. Paralysis bladder several days. Wound in ankle; spic. bone discharged Aug. 4.
10 M. 21	Swede.	August 5, 1873.	Jump.	Just above ankle.	Fract. box; Aug. 11, Plaster Paris.	September 28, 1873.	Good.	
11 M. 40	English.	February 14, 1874.	Run over.	No shortening.	Plast. Paris.	April 8, 1874.	Good.	
12 M. 27	American.	October 18, 1875.	Struck against stone.	Right, middle.	Fract. box; Nov. 8, later splints.	January 17, 1876.	Good.	
13 M. 5	American.	December 22, 1875.	Fall.	Lower third.	Fract. box; Jan. 31, gutta-percha splint.	March 1, 1876.	Good.	
14 M. 21	American.	November 23, 1877.	Bale cotton fell on him.	Left lower and middle thirds transverse.	Fract. box; Nov. 29, side splints.	December 13, 1877.	Good.	
15 M. 45	Irish.	July 15, 1878.	Mining accident.	Left comminuted.	Side splints.	July 15, 1878.	Died 8 hrs after admission.	Depressed fracture skull; fract. left acromion.
1 F. 42	American.	December 17, 1869.	Fall.	Left.	Compound. Fracture box; December 18, dextrine bandage.	December 27, 1869.	Good.	Occurred thirteen days previous to admission.
2 M. 28	Canadian.	July 12, 1872.	Thrown from wagon.	Comminuted.	Fracture box; August 28, dextrine bandage; September 8, side splints.	September 17, 1872.	Good.	
1 M. 23	Irish.	July 22, 1870.	Fall.	Left; lower third.		August 20, 1870.	Good.	
2 M. 20	American.	June 27, 1871.	Fall.	Lower and middle third.	Fracture box.	July 17, 1871.	Good.	
3 M. 43	American.	December 20, 1871.	Fall.	Right.	Pasteboard splint.	February 17, 1872.	Good.	
4 F. 50	Scotch.	April 13, 1874.	Fall.		Side splint; April 25, plaster Paris.	May 25, 1874.	Good.	
5 M. 20	American.	April 6, 1877.	Kicked	"Lower fifth."	Int. st. splint, and, April 10, ext.	May 14, 1877.	Good.	

COMPLICATED INJURIES, RAPIDLY FATAL (INCLUDED IN THE PRECEDING).

Sex.	Age.	Nativity.	Date of Admission.	Cause.	Definition of Fracture.	Treatment.	Date of Discharge.	Result.
1	M.	21 American.	November 2, 1871.	Railroad accident.	Comp. fract. of right femur; commin. fract. of left femur.	—	—	Died in a few hours.
2	M.	24 American.	January 31, 1872.	Railroad accident.	Comp. fract. of leg, and penetrating wound of thigh down to trochanter.	—	—	Died in three hours from admission.
3	M.	13 American.	February 17, 1872.	Railroad accident.	Comp. fract. of leg, and fract. of four lower ribs near vertebral connection.	—	—	Died in half an hour.
4	M.	12 American.	February 8, 1874.	Railroad accident.	Comp. commin. fract. of left femur; comp. commin. fr. of right tibia and fibula.	—	—	Died two hours after admission.
5	M.	31 Canadian.	April 9, 1874.	Railroad accident.	Comp. commin. fracture of right femur.	—	—	Died one hour after admission.
6	M.	24 Irish.	April 10, 1875.	Fall of heavy timber.	Dislocate. of tenth dorsal vertebra; fract. of the eleventh dorsal vertebra, ribs, and acromial end of clavicle.	—	—	Died in nine hours from admission.
7	M.	— Irish.	September 24, 1875.	Railroad accident.	Comp. commin. fract. of left femur; comp. commin. fr. of fourth ring, of left hand; lacerated wound of left arm from shoulder to wrist.	—	—	Died in half an hour after admission.
8	M.	57 —	April 25, 1876.	Railroad accident.	Comp. commin. fract. of right leg, toes of left foot.	—	—	Died in one and a half hours after admission.
9	M.	24 American.	August 20, 1877.	Railroad accident.	Comp. comminuted fract. of both legs, — both bones.	—	—	Died in two hours after admission.
10	M.	13 Scotch.	May 16, 1878.	Fall from third story.	Depressed fract. of skull behind left ear; comp. disloc. of right radius; fract. of left ulna; fract. of right tibia and fibula.	—	—	Died on admission.
11.	M.	45 Irish	July 15, 1878.	Mining accident.	Depressed fract. of skull; fr. of left arm; comminuted fract. of left tibia.	Skull trephined; store extracted from ante fragment between dura mater and inner table. Splints to leg.	—	Died eight hours after admission.

SUMMARY.

Head.								
Cranium.								
Simple							3	
Compound							7	10
Maxillæ.	Both.	Compound					1	
Inferior.	Simple						8	9
Trunk.								
Vertebrae								6
Ribs								13
Scapula								4
Clavicle								12
Upper Extremity.								
Arm.	Simple						17	
Elbow Joint.	Compound						1	
Comminuted							1	2
Fore-arm.								
Radius and Ulna.	Simple						7	
Radius							7	
Ulna							8	22
Lower Extremity.								
Thigh.	Neck						23	10
Shaft.	Simple						4	
Compound							—	27
Patella								37
Leg.	Tibia and Fibula.	Simple					17	2
	Compound						12	
							—	29
	Tibia.	Simple					15	
	Compound						2	
							—	17
	Fibula.	Simple					5	51
							—	90
								185

CLAVICLE.

There were twelve cases, of which eleven were males and one female. Of these, one died from other serious injuries, and one left the hospital four days after admission. The average residence of the remaining ten was thirty-six days. Of these cases, five were on the right side, four on the left, and three not given. In eight the fracture was in the outer third, in two, in the middle, one in the inner third, and one not stated. The treatment varied, the larger number being treated by the axillary pad and bandage; Sayre's method, with adhesive strips, was used in some cases.

HUMERUS.

There were seventeen cases, all of simple fracture of which thirteen were in males and four in females. The right humerus was broken in two cases, the left in six, and in nine it is not stated. Of seventeen, one died from intemperance, three days after admission, and the average residence of sixteen was forty-four days. As to the location of fracture, four were in the upper third, one middle third, two junction of middle and lower thirds, two lower third, two external condyle, three internal condyle, one both condyles, and two not stated. In treating these cases, angular splints, external or internal, were used in nearly all of those of the lower portion. Plaster of Paris was applied in three cases.

RADIUS AND ULNA.

Seven cases, of which six male and one female. Of these, two were of the right arm and one of the left, four not stated. Of these seven, one was discharged, at his own request, on the seventeenth day, and of the remaining six the average residence was thirty-seven days. As to location, one was in the upper third, one in the middle, one at the junction of middle and lower, two in the lower third, one in which the radius was broken in the lower and the ulna in the upper, and

one not stated. Antero-posterior splints were chiefly used.

Radius. Seven cases: five males, two females; three of the right, one of the left, and four not stated. The average residence was forty-three days. Four were of Colles's fracture, two of the lower end, and one just below the tubercle. Anterior and posterior splints were chiefly used.

Ulna. Eight cases: six males, two females; two of the left, six not stated. Of the eight cases, one died immediately after admission from other severe injuries, and of the remaining seven the average residence was forty-one days. Of these fractures, one was of the olecranon, two of the upper third, one of the middle, and four not stated. In the case where the olecranon was fractured, the degree of separation on admission or discharge is not given.

FEMUR.

There were thirty-seven cases in all, of which ten were of the neck of the bone. Of these ten, there were six males and four females. In only one instance is the side given, and that was the right. Of these cases, one left, one was discharged for misbehavior early in the treatment, and one was discharged on the eighteenth day with "*union firm*," so that in this case, presumably, there was an error in diagnosis. Of the remaining seven the average residence was ninety-one days. The amount of shortening on entrance is not stated in seven cases; one had no shortening, but eversion, and in two there was one inch. At the time of discharge the condition is not stated in five, and of the rest one had no shortening (not the same as on entrance), one had one fourth inch, one one half to three fourths inch, one three fourths inch, and one one inch. The treatment was chiefly by Buck's method, with the addition sometimes of sand bags and long splints.

There were twenty-three fractures of the shaft of the femur, and of these twenty were males and three females. Of these, eight were of the right thigh, eight of the left, one of both, and six not stated. Two of these cases died, one on the second day after admission, and one in a few hours, with a compound fracture of the other femur. Of the remaining twenty-one cases, three were removed by friends, three fell while convalescent, and refractured the thigh, remaining in the hospital respectively one hundred and twenty-eight, one hundred and thirty-six, and one hundred and ninety days, and for the remaining fifteen the average residence was eighty-three days. On admission the amount of shortening is not stated in fifteen cases. Three had two inches, and one each had one and three fourths inches, one and one half inches, one inch, and one half inch. In the case in which both femurs were broken, the left was one half inch shorter. At the time of leaving the hospital the amount of shortening is not stated in nine cases; in three there was one inch, in one three fourths inch, in three one half inch, and in one each, one fourth to one half inch, one third inch, and one eighth inch; in three there is said to have been no shortening. In the case of both femurs, the limbs were of equal length. Buck's apparatus was very generally employed, followed by plaster of Paris. One case, admitted November 28, 1874, was remarkable from the rare complication of a compound dislocation of the internal cuneiform bone, which was forcibly replaced, and the patient made a good recovery.

There were four cases of compound fracture, all of which terminated fatally shortly after admission.

PATELLA.

There were two cases, both male, one stellate, and one of the left, transverse. The degree of separation is not given. The former was in the hospital ninety-nine days, and the fragments were "found in good position" shortly before leaving, the treatment consisting of a posterior splint, adhesive strips, and a figure-of-eight bandage. The other was in the hospital but twenty-three days, and was treated by a posterior splint and elastic bands.

TIBIA AND FIBULA.

Of these there were seventeen cases of simple fracture, of which fourteen were males and three females, two of the right, six of the left, and nine not stated. Two died, one shortly after admission, and one from pneumonia following a fractured rib; two left the hospital; and one was discharged at his own request on the thirteenth day. The average residence of the remaining twelve was seventy-seven days. As to location, there were two in the upper third, one at the junction of the middle and upper, four in the middle third, seven in the lower third, and three not stated. In one case the fibula was fractured three inches, and in another one inch, below the tibia. The degree of shortening is given only in five cases on admission; of these, three had one inch, one had three fourths inch and one had one half inch; it is given in only two instances on discharge, one having three eighths inch and one no shortening. The treatment in the majority of cases was by the fracture box, although plaster of Paris was used in a few cases. One case of ununited fracture was admitted, the fracture occurring sixty-eight days previous; he remained in the hospital seventy-eight days, and was treated by the fracture box and the dextrine splint. He was discharged at his own request, with "the fibula united and the tibia quite firm."

There were twelve cases of compound fracture of these bones, all in males; one was of both legs, two of the right, and nine not stated. Six died within a few hours of admission, and one was removed early in the treatment. Of the remaining five the average residence was one hundred and twenty-six days. The fracture box and fenestrated plaster-of-Paris bandages were chiefly employed. There are no statistics as to shortening.

Tibia. There were fifteen cases of simple fracture of this bone, of which fourteen were males and one female. Three were of the right leg, two of the left, and ten not stated. One died in a few hours after admission from a fracture of the skull, and of the remaining fourteen the average residence was seventy-three days. As to location, six were in the lower third, one lower and middle, one middle, one upper third, and six not stated. The fracture box was chiefly used, but in a few cases plaster of Paris or side splints were applied.

There were two cases of compound fracture of this bone, one male and one female, one of the left leg and the other not stated. One occurred thirteen days prior to admission, and after remaining ten days was discharged; the other remained sixty-seven days.

Fibula. There were five cases, four male and one female; one of the right, one of the left, and three not

stated. The average residence was thirty-eight days. Three were in the lower third.

DISLOCATIONS.

There have been but eight cases of uncomplicated dislocations admitted to the wards of the hospital during the ten years covered by these tables. Of these, four have been of the thigh, all in males from twenty-six to forty years of age. Two were of the left thigh, and two not stated. Two were upon the dorsum ilii, one into the ischiatic notch, and one into the foramen ovale. All were reduced by manipulation according to Dr. Bigelow's method.

There were two dislocations of the humerus, one in a boy aged fourteen, "forwards and upwards," occurring two days before admission, and one in a man aged forty, upon the dorsum of the scapula, occurring eleven days before admission. Both were easily reduced.

There was one dislocation of the radius and ulna backwards, of long standing, in a man thirty-six years

of age, admitted November 14, 1871. Frequent efforts were unsuccessfully made, and in the last of these, the pulleys being in use, a fracture of the bone was produced; which bone is not stated. He, however, left the hospital after a stay of six weeks, with improvement in the motion of the joint.

There was also one dislocation of the outer end of the clavicle in a man aged twenty-seven.

CONCLUSION.

Such are the somewhat meagre results that are on record for these first years of the existence of the hospital. Like all other institutions this has to grow into popular favor, and its second decennial will probably witness a larger number of cases coming under treatment. At all events, this comparatively small number will, I trust, furnish some details of interest to the reader, and may be regarded as a simple contribution to the study of fractures.

PROVIDENCE, April 29, 1880.

